



U.S. Fish & Wildlife Service

Fish & Wildlife Management Assistance

National Fish Passage Program

What is the problem?

After more than two centuries of building dams and other structures on rivers, many Americans are raising concerns about their effects on fish and other aquatic species. People have altered our Nation's rivers and streams for many reasons. Millions of culverts, dikes, water diversions, dams, and other artificial barriers were constructed to impound and redirect flowing water for irrigation, flood control, electrical generation, drinking water, and transportation. However, most of these barriers



Bears and other animals depend on fish returning to their spawning habitats.

prevent or hinder fish from natural migrations, exclude them from important habitats, and significantly change other features of river ecosystems.

All river fish move between feeding and spawning areas and make other seasonal migrations to important habitats. Barriers prevent fish from reaching these areas. Dams also prevent the natural flow of nutrients and



Fish ladder provides fish passage around a lowhead dam.

sediment needed to nourish downstream life and beaches. Water diversions reduce flow, sometimes drying long stretches of rivers. Reservoirs increase water temperature and provide habitat for nonnative fish that compete with or prey upon native species. These changes have led to severely reduced fish populations. Some populations are gone and others are on the brink of disappearing.

Improperly placed culverts block fish from migration routes. They may be retrofitted or replaced by bridges to restore natural flows and fish passage.



What are we doing?

In 1998, the U.S. Fish and Wildlife Service initiated the National Fish Passage Program to address these problems in a comprehensive manner. The National Fish Passage Program is administered by the Fish and Wildlife Management Assistance program, with its cadre of about 300 biologists located across the Nation. We work with local communities and partner agencies to restore natural flows and fish migration by removing or by-passing barriers.

Funding from the National Fish Passage Program helps remove barriers, retrofit culverts, build fishways and document the resulting increases of fish and other aquatic species. We always work with partners to maximize available resources. Partners include local, State, and Tribal governments, Federal agencies, landowners, and non-governmental organizations. Projects require a minimum partner match of 50 percent. Seventy percent of program funds must be used for in-the-water projects. The remaining 30 percent



pays for planning and evaluation, and to administer the Program.

Each of the Service's seven Regions has a Fish Passage Coordinator whose responsibility is to work with field stations and other agencies to identify fish passage problems and build partnerships to remedy them. Our biologists conduct surveys to determine what species are present and plan for the most effective type of fish passage. They determine the best sites for projects and conduct "before and after" population studies.

The program is also developing a computer database to record information on barrier locations throughout the Nation. This unique database will be widely accessible on the internet and will help to identify location of barriers, associated species, and habitat information for use in planning fish passage projects.

Who is benefitting?

Fish passage projects benefit people, fish and other animals. Sport anglers and commercial fishermen gain from larger fish populations. The public gains by knowing that we are correcting the mistakes of the past and making the environment better.

Completed fish passage projects are benefiting 50 endangered and threatened species and are helping prevent others from being listed. More than 3,000 miles of river habitat are now open and 20,000 acres of wetlands are accessible for fish spawning and growth. Trout, herring, striped bass, shad, salmon, and other species benefit. Fish eating birds, such as eagles, ospreys, herons and kingfishers have more fish to eat. Mammals that rely on fish for food, like bears, otters, and mink, also benefit.

Our Program supports the Service's mission by restoring native fish and other aquatic species to self-sustaining levels. Correcting fish migration problems enhances entire watersheds including uplands, wetlands, and coastal areas. This ultimately benefits all of the people that use and enjoy these areas.



Before (top) and after (lower) culvert renovation.



Information on the National Fish Passage Program is available on the internet <http://fisheries.fws.gov/DraftFP/index.htm>.

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